



THE DOCENT NEWSLETTER FOR TORREY PINES STATE NATURAL RESERVE

Issue 421

What Is That Dolphin I See?

by Joan R. Simon

A t the July 11 docent monthly meeting hosted virtually, Dr. David Weller, Director of the Marine Mammal and Turtle Division at the Southwest Fisheries Science Center in La Jolla (a part of NOAA) took us on a fascinating whirlwind tour of the dolphins of San Diego. He started out with a description of the basic anatomy of a dolphin, which consists of:

Rostrum (beak), which is a bony structure.

Melon, where the echolocation is developed further back in the nasal passage. Dolphins are able to focus it more sharply by making it broader or narrower to find their prey. "It's a pretty important feature because it's how they make a living," Dr. Weller noted.

Blow hole, single.

Dorsal fin, which has no bony structure and is important in thermal regulation. Dolphins will pump blood into the fin and back down into the body in order to regulate their temperature. "For the most part, marine mammals have an issue with keeping

Docent General Meeting

Saturday, August 8, 9 am

Location: Online via Zoom (link to the meeting will be emailed to all docents)

August 2020

Speakers: Mike Hastings, Los Peñasquitos Lagoon Foundation (LPLF)

Topic: Preserving Los Peñasquitos Lagoon Since 2000, Mike Hastings has served as Executive Director of LPLF, a nonprofit organization that works directly with California State Parks and other key stakeholder groups to protect, restore, enhance, and preserve Los Peñasquitos Lagoon, a State Marsh Natural Preserve. In his Zoom presentation to the TPDS, Mike will discuss the history and background of LPLF, the Los Peñasquitos Lagoon Enhancement Plan (original and 2017 update), and plans for a large-scale restoration of the Lagoon.

Refreshments: Bring your own.

cool because they are
covered in a thick layer of
blubber."
Fluke, which is boneless and
separated, as with whales, by
a medial notch.

Flipper, which looks like a fin, but actually has skeletal bones similar to the human hand.

In addition to their ability to echolocate, dolphins are generally very vocal with whistles and clicks. Some species may have signature whistles that identify who they are. (Cont. on pg. 2)



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FLASH From Joy Inton: Don't forget to hold your ZooNooz magazines to bring to the Museum Shop when it reopens.



Coastal Bottlenose Dolphin: credit wildcoast.co.za

The most easily sighted of the "regulars" found off San Diego is the **Coastal Bottlenose Dolphin** (*Tursiops truncatues*), which is likely to be the one encountered by surfers and swimmers in our local waters. It lives within 1–2 km of shore in a very narrow coastal corridor. There are only about 500 of them living in what is essentially an "urban environment." Although not endangered, their small numbers make them vulnerable at a population level.

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Their counterpart, the **Offshore Bottlenose**, can be found from about 5 miles offshore out to the Channel Islands and beyond. While they are the same species, they are non-overlapping populations that appear to not interbreed to any appreciable extent.

Bottlenose dolphins, measuring about 8–9 feet, are "hard to mistake, because they look like the stereotypical dolphin," Dr. Weller explained. They have a relatively short rostrum and a "typical" dorsal fin, which is sloped on the front and curved in the back. They are dark gray with a light gray to pink belly. They live on fish and squid and travel in groups numbering from two up to 50 or more. From the Torrey Pines cliffs, you might see five groups swimming together, totaling 30 animals, from Scripps Pier to Del Mar. They are curious and friendly and will commonly approach boats to inspect what's going on. Their distribution along the Pacific coast runs from Baja to just north of San Francisco Bay, where the waters become too cold. They are widely distributed globally and as a species are doing well, in no small part because of their creative and opportunistic nature. One Bottlenose, fondly named "Patches" for the distinct skin condition which sets him/her apart, can be frequently seen further out from our shore, most likely from a whale-watching boat. The skin discoloration is a mystery to scientists, but he/she is extremely friendly and is always seen with other dolphins.

Common Dolphins can be either short-beak (*Delphinus delphis*) or long-beak (*Delphinus capensis*), but they are hard to tell apart. They live further offshore and are often seen by coastal fishermen. Measuring about 6–8 feet, they tend to travel in big groups and are speedy. Their signature is a tricolor "paint job" of

white, yellow and black. They like to ride along the bows of



The Common Dolphin: credit dolphins-world.com

boats and frequently get caught in fishing nets. These unfortunate accidents have led scientists to learn a great deal about them. There are about 400,000 short-beak and 30,000 long-beak animals in our West Coast waters, and they are widely distributed globally, but not to the extent of Bottlenecks.



Risso's Dolphin: credit tetiaroasociety.org

The **Risso's Dolphin** (Grampus griseus) is white-sided with visible scarring, which stems from battles with squids (their favorite food) and from playful interactions with each other, which according to Dr. Weller involves "nipping, biting, not unlike the behavior of some dogs," leaving teeth marks on their skins. Their blunt nose shape hides the rostrum, which is "still there if you carve away all the flesh." They are born dark grey and turn whiter as they get older. They are 12-13 feet in length and have very tall dorsal fins which are "a real give-away in terms of species identification." They are slow-moving and swim in large side-by-side formations, ranging from 10 to 50 and more, which spread out their sensory system over quite a large area, facilitating their search for food. They are not interested in boats and are sometimes mistaken for killer whales because of their tall dorsal fin. It is only in recent years that they have come closer to shore and are visible from our cliffs. They are widely distributed globally and in the West Coast waters number approximately 12,000.

The **Pacific White-Sided Dolphin** (*Lagenorhyncus obliquidens*) at 6–7 feet has a short, blunt rostrum, a distinct hourglass pattern on their flank and a frosted dorsal fin. They move in large schools of up to a few thousand animals, but more typically we find them here in groups of 25 to 60, breaking off into smaller units of 10 to 20 for feeding.



Twenty years ago they would have been difficult to spot, but

Pacific White-sided dolphin: credit tinyurl.com/qpanimals-pbworks-PWsided

now we regularly see them in near-shore waters. They are primarily a cooler-water species, found from the tip of Baja up to the Gulf of Alaska and across to Asia. Approximately 30,000 are found in West Coast waters. They love to bow ride and are known for their acrobatics, stirring up plumes of white water as they speed along.

There are a number of less-common dolphins that live in our area, though sightings are uncommon. **Killer Whales** (*Orcinus orca*) visit our waters perhaps 4 to 6 times a year and cause a great deal of excitement in the media whenever they are seen. They are readily identifiable, with three distinctive features: a massive dorsal fin which can be up to 6 feet tall in adult males; an eye patch; and a saddle patch which gives each animal a distinctive "fingerprint," from which individuals can be identified by eye or with photographs. Visiting pods can be from the south or north and live in groups of 6 to 20. Their movements are most likely spurred by better feeding grounds.

The **Northern Right Whale Dolphin** (*Lissodelphis borealis*) have no dorsal fin and are relatively uncommon. They can be seen around the Channel Islands.

The **Short-Finned Pilot Whales** (*Globicephala macrorhyncus*) were the most common dolphins in San Diego in the 1960's, then disappeared in the 1980's and were not seen at all until about 10 years ago. When they disappeared, they were replaced by the Risso's dolphins. Some of the recently reappearing dolphins can be matched to ones seen in the 1980's. Their disappearance and reappearance as yet cannot be explained.

The **False Killer Whale** (*Pseudorca crassidens*) is seen in this area very rarely. Its normal habitat is tropical waters. It is bigger than a pilot whale, but skinnier with a smaller dorsal fin.

Dall's Porpoise, which is an incredibly fast sea mammal, has a triangular dorsal fin. They are relatively small and

chunky and live in colder water further from shore and mostly to the north. To distinguish between dolphins and porpoises, teeth shape is diagnostic. The dolphins have sharp, conical teeth, while the porpoise's teeth are shovellike. Porpoises are generally much smaller than most dolphins. It is very uncommon to see porpoises off the San Diego coast.

For complete reports on the status of dolphins and other sea mammals in our area, go to <u>nmfs.noaa.gov/pr/</u>

Torrey Pines Docent Society General Meeting Minutes July 11, 2020

The General Meeting was called to order at 9:00 am by President Janet Ugalde.

TPDS **President Ugalde** welcomed Torrey Pines docents to the GM, again conducted via Zoom.

At its peak, 119 docents were signed in.

Speaker:

Dr. David Weller, Director, Marine Mammal and Turtle Division at the NOAA Southwest Fisheries Science Center.

[See article on pp 1-4.]

Science Fair Projects Presentation:

TP Docent **Wayne Kornreich** thanked the TP docents **Lillian Lachicote, Karen Lisi,** and **Leigh Fenly** for serving as Science Fair judges. He reminded the TP docents that there is always a need for judges and asked those interested in serving in that capacity in 2021 to contact him. Wayne then introduced the first presentation, given jointly by Rohan Keswani and Elias Samady. At the time of their study, Rohan and Elias were 7th grade students at the Rhoades School in Encinitas. Rohan and Elias presented on the "Invasive Species at the Batiquitos Lagoon."

The second presentation was by Willa Norvell, who was an 8th grade student at the Rhoades School when she conducted her research. Willa presented her findings in a talk entitled "Woolsey Fire Burnt Soil: Analyzing Factors for Native Plant Regrowth."

[See July Torreyana for abstracts of their research.]

TPDS Business

President's Report

President Janet Ugalde shared the following:

• *Financial Status of TPDS*: TPDS's treasurer, **Gerry Lawrence**, assured the group that the society is in great financial shape overall. Although our income is down – mostly because the museum shop has been closed since the middle of March – the society's savings will carry us forward for the foreseeable future.

- *Docent Day:* Docent Day was a huge success. Janet captured impressions (including photos) of the day in an article for the July *Torreyana*. Janet gave a BIG shout-out to **Dylan Hardenbrook**. A BIG THANK YOU from all docents! [See pp. 7-8 for photos and comments.]
- *Storytellers:* Janet announced that the Children's Program team in September will organize a special event, a Storytellers. Details about this event will be shared after the Children's Program team has had a chance to meet and discuss details of the event. Stay tuned!
- *Docent Volunteering Hours Rules 2020*: In light of the COVID-19–related Reserve closure, Dylan agreed to provide every docent who received a 2020 parking pass with a 2021 pass, independent of the docent's total 2020 volunteering hours. Dylan confirmed, however, that docents must volunteer for 84 hours this year to be able to count 2020 towards achieving Lifetime Docent status.
- Special Volunteering Opportunities for 2020: In response to the volunteer opportunity challenge caused by COVID-19, the TPDS board approved amending the list of volunteer opportunities for 2020 only. The list is being developed and will include:

Contributing to UC San Diego's Scripps Coastal Reserve (ucnrs.org/reserves/scripps-coastalreserve/, by participating in weekly weeding events. Janet pointed out that the Scripps Coastal Reserve has the same gorgeous view, and supporting Scripps Coastal Reserve represents "community outreach in action". Specifics will be announced via Google Group. In addition, 2019 TPDS Training Team members will be able to exercise their interpretation skills by serving as mentors/hike leaders for UCSD students this fall.

- Participating in organized clean-up events organized by Kristine Schindler (Old Highway 101 and lagoon) and Janice Barnard (Carmel Valley Road).
- Supporting TPA in creating a *Torreyana* anthology for which TPA received a grant from the E.W. Scripps Foundation. The anthology will eventually be sold in the Lodge's Museum Shop.
- Attending TPDS' GM; docents will be able to log in two hours of volunteer work if they attend the full meeting, i.e., speaker presentation and business session, or one hour if they only attend the speaker part. Docents can claim hours spent

attending the GM or part of the GM live via Zoom or spent listening to the recorded versions.

- Participating in the Refresh Training; docents can claim one hour for attending the training live via Zoom or listening to the recorded versions, for a total of 12 hours per year as continuing education.
- Supporting the CareTeam by creating face masks for fellow docents and park staff.
- Working with TPA on developing an online shop; TPA is inviting the TPDS to sell their baseball caps via their online platform. TPA is asking for TPDS volunteers to help TPA sales staff in handling the fulfillment of orders.
- Upcoming Docent Refresh Training Sessions: The next refresh training will take place July 25. As usual it will start at 9 am. The speaker, Marty Hales, will talk about "The Birds of Torrey Pines." Janet also announced that the August 22 refresh training, Historical Characters of the Torrey Pines Reserve, will be recorded in the Reserve by Louis Sands.

Louis will also record a walk in the Reserve with the geology expert Dr. Phil Stoffer for the September 26 refresh session.

• *Passing of docent Don Grine on June 24*: Don was a beloved and highly engaged docent who made significant contributions to the society. He spent endless hours on the trails, he shared his expertise in geology with us, he loved to teach in the Children's Program, he served the society as its president and training officer and he led an endless number of walks and special walks through the Reserve. Our deepest condolences to his wife Joan. [See pg. 6]

Docent of the Month: Serena Grädel

Photo by Herb Knüfken

L would like to take this as an opportunity to express my thankfulness to this wonderful group. The Docent Society never ceases to amaze me - it has been very special for me to experience the sense of cordiality within the group and the shared enthusiasm for a beautiful and fragile place. Thank



you all for letting me be a part of it, thank you for the many chances to learn new things, for sharing your experience and time, and for being so friendly and welcoming.

Becoming a docent at Torrey Pines has clearly been the best thing that happened to me in San Diego. It has helped shape these two years I was lucky enough to spend here, and it had a big impact on me personally. I feel a very strong attachment to the Reserve and to the docent community. As sad as I am to leave it behind, now that my husband and I are moving back to Switzerland, I know the place and people will stay close to my heart. My best wishes to all of you, Serena

Docent Refresh

by Janice Barnard

As we continue our Docent Refresh Training, I would like to thank our wonderful trainers so far: **Pao Chau, Janet Ugalde, Margaret Fillius, Bruce Montgomery, Kathy Dickey,** and **Marty Hales**. We are fortunate to have an amazing team of experts in the TPDS. The presentations have not only been informative but have generated interesting questions and conversations.

We hope that you have had the time to enjoy the training. Again, the purpose is to keep our interpretive skills sharp and ready to use when once again TPSNR is ready for our services.

The training will continue monthly as indicated below. Generally, it will be the fourth Saturday of the month from 9 a.m. to approximately 10:15 a.m. with Q&A at the end of the presentation. If you happen to miss the Zoom training session, you can watch the recording within a couple of days on our website (Volunteering/Docent Login/Docent Documents). You can receive one hour of continuing education for your participation or by watching the recording.

The following is the schedule for the next two training sessions.

Aug 22: Reserve History by Mark Embree and team

Sept 26: Geology by Dr. Phil Stoffer

We hope you will join us.

Thank you to the trainers, the CARE Team, the TPDS Board, and, of course, **Roger Isaacson** for their support in making this special training opportunity happen.

In Memoriam: Don Grine

Don Grine, who gave so much of his time and energy to Torrev Pines, died on

June 24. He became a docent in 1993 and served in various roles including TPDS president, docent trainer, and geology expert. He was a birder, was active for many years in the Children's Program, and started the successful Special Walks program.



Here are excerpts of tributes from fellow docents who knew and worked with Don over the years:

"Don was always willing to share his tremendous knowledge with others, and usually did so with his great sense of humor. I will particularly remember his smile and the twinkle in his eyes." –**Margaret Fillius**

"Don had his PhD in geology and so many of us docents loved going on Don's beach geology walks." – Ann Gaarder

"In appreciation for Don sharing his geology expertise with our training class of 1996, I presented him with a watch at our graduation. It read out in geologic time. It probably still says, 'Holocene."" – **Rick Kamen**

"Don was the training director in 2002 when I trained. He was a wonderful mentor to the entire class, and was even able to make geology interesting. We'll miss him." – **Rick Vogel**

"When some of us received training in 2006, Don Grine was the patient and knowledgeable geology guy with the wry sense of humor. He gave so much of his time in walks, trying to unveil the mysteries of the sandstones, convoluted mudstones, concretions, even the quick history of a few volcanic islands of millions of years ago that formed some of the East County landscape. He would mention the Santa Rosa Fault and other faults in the vicinity leading to changes in the Reserve's footings, speculating on the length of time that the Visitor Center would remain intact, due to the underlying faults in the area! When we would worry, he would grin and say, 'Oh, don't worry, that won't happen for another 100 years or so."" – **Rhea Bridy**

"Don made Torrey Pines geology my favorite subject during training in 2007. Remember 'water volcanos'? An inspiring guy." – **Mike Yang**

Nature Note - Magnetite

by Don Grine

[Article reprinted from *Torreyana July 1997*]

In the Children's Program, we have been using hand magnets to pull out black grains of "magnetite" from sand along the paths in the Reserve. The material is probably mostly magnetite (Fe₃O₄) but many grains probably have mixes of other minerals, especially ilmenite (FeTiO₃). The grains are <u>not</u> iron. Native iron is rarer than gold because iron combines rapidly with oxygen to form stable compounds.

Magnetite is a common minor mineral in most igneous rocks. It has a hardness of 6 on Moh's scale, is resistant to chemical change, and does not break easily. It is therefore a common mineral in most sands and sandstones derived from the igneous rocks.

In the Reserve, the amount of magnetite in sand varies depending on the origin of the sand. For instance, in sand from the Torrey sandstone on the Fleming Trail, there is almost none. In sand on the ocean side of the Fleming Trail, there is a few percent.

Magnetite also separates when water runs over the sand because it is about twice as dense as the quartz making up most of our sands. The black streaks on the beach are made as water from a receding wave washes away the quartz in its ripples. Toss a cobble in a few inches of water and watch the black streaks form as the wave retreats.

Microscopic magnetite crystals have been found in the brains of homing pigeons, sea turtles, and several other animals. Experiments show that these animals can sense the direction of the earth's field and use it to navigate. We don't yet understand how the sensing works but presume the magnetite acts as a compass needle.



Magnetotactic bacteria (see above) use their chain of magnetite to swim down the inclined magnetic field toward the bottom of any body of water. They grow better in low oxygen concentrations.

[Ed: click here to learn more: <u>tinyurl.com/magnetotactic-bacteria-info</u>]

Torrey Pines Book Club

We will continue to meet via Zoom at our regularly scheduled time. Please notify **Ken King** if you plan to participate and if you need any extra help getting connected.

When: Tuesday, August 11, 1:00 pm

What: Longitude: The True Story of a Lone Genius

Who Solved the Greatest Scientific Problem of His Time by Dava Sobel

Amazon says:

Anyone alive in the eighteenth century would have known that "the longitude problem" was the thorniest scientific dilemma of the day –



and had been for centuries. Lacking the ability to measure their longitude, sailors throughout the great ages of exploration had been literally lost at sea as soon as they lost sight of land. Thousands of lives and the increasing fortunes of nations hung on a resolution. One man, John Harrison, in complete opposition to the scientific community, dared to imagine a mechanical solution—a clock that would keep precise time at sea, something no clock had ever been able to do on land.

Longitude is the dramatic human story of an epic scientific quest and of Harrison's forty-year obsession with building his perfect timekeeper, known today as the chronometer. Full of heroism and chicanery, it is also a fascinating brief history of astronomy, navigation, and clockmaking, and opens a new window on our world.

Note: **Annette Ring** will be in our meeting to give us a short course on navigation at sea, as she spent a couple of her teenage years at sea doing that!

September 8: *The Perfect Predator: A Scientist's Race to Save Her Husband from a Deadly Superbug: A Memoir* by Steffanie Strathdee and Tom Patterson



Docent Day - June 23, 2020

What a wonderful, fabulous day yesterday was at the Reserve. Dylan, thank you so much for providing us with that experience. I was able, once again, to show my husband why I love this place so much. Thank you and all the staff for making yesterday possible!! – **Susan Buxbaum**

Dylan, I can't thank you enough for providing us with this beautiful, wonderful, very special day at the Reserve. My heart needed this. I didn't want to leave. With so much appreciation – **Franne Fischman**

I soaked up so much of the beauty, knowing it might be my last visit in a long time. So fortunate we have some younger docents. Many old-timers like me are reluctant to return until there is a vaccine developed and then distributed to us. – **Ann Gaarder**

It was glorious! The plants and trees all look so happy. Lots of blooms. Mariposa Lilies as high as 5 feet. Saw an alligator lizard, a quail family and heard an Ash-sided Flycatcher for the first time in a very long time. So nice to have the quiet and not have to deal with hordes of noisy people. Wish we could set aside an hour like today before opening every day or once a week.

So, thanks for today. - Kathy Dickey



A Blooming Prickly Pear Cactus

Guy Fleming Trail

by Rhea Bridy

One pineapple-colored bloom of prickly pear cactus amid the sweeping thicket of tan Torrey pine needles, before waking pollinators could dry their wings to fly, I felt liberated. I could meander alone and undisturbed in a splendid coastal sage scrub/chaparral of flowers. It was a dream come true...trees, ocean, earth renewed where I could breathe free in this moment of beauty.

Docent Day Photos by Eva Armi and Anna-Lena Malm



Museum Shop Online!

The Torrey Pines Boutique is now up and running on the TPA website!

With our Visitor Center and its Museum Shop closed, we are working with the Torrey Pines Association to open an online boutique to sell some of our items. Currently we have only our ballcaps, bandannas, and canvas bags for sale, but we hope to add more items if it goes well. Our docent discount is still to be determined by the TPA board.

Please visit the boutique at torrey-pines-boutique.myshopify.com

Bird of the Month: Ash-Throated Flycatcher

by Jack Friery; photo by Herb Knüfken

Our featured bird this month is the Ash-Throated Flycatcher (Myiarchus cinerascens). This animated flycatcher is occasionally seen at the Reserve in summer, when it migrates up from its winter range (Mexico to Honduras). Look for a bird slightly smaller than a robin (about 7.5 to 8 inches long), with a crest or peak, belly lightly washed in yellow, and rusty-colored tail and wing patches. It is a bird of arid places – like some desert species, it doesn't drink water at all, instead getting all its necessary moisture from the insects and spiders it captures.

Like many flycatchers, it is in the family *Tyrannidae*, or tyrant flycatchers, a name that reflects the aggressive nature of some species, which drive away much larger birds that venture too near their nests. Its call translates as *ka-brick*, but some birders compare the call to the sound of an English Bobby's whistle. (See <u>youtube.com/watch?v=oohZR60eED8</u> for an example of that.)

Sources: <u>allaboutbirds.org/guide/Ash-</u> <u>throated_Flycatcher/overview</u> allaboutbirds.org/guide/browse/taxonomy/Tyrannidae.



Torrey Pines Docent Society Bird Survey: July 2020

Number of species:53 (partial bird count due to COVID-19)

Mallard 3 Pied-billed Grebe 1 Western Grebe 28 Mourning Dove 10 White-throated Swift 15 Anna's Hummingbird 5 Allen's Hummingbird 3 Killdeer 1 Western Gull 25 California Gull 2 Caspian Tern 2 Brandt's Cormorant 5 Double-crested Cormorant 2 Brown Pelican 4 Great Blue Heron 2 Great Egret 7 Snowy Egret 10 Osprey 2 Red-shouldered Hawk 1 Downy Woodpecker 4 Nuttall's Woodpecker 4 American Kestrel 4 Peregrine Falcon 3 Pacific-slope Flycatcher 10 Black Phoebe 3 Ash-throated Flycatcher 9 Cassin's Kingbird 3

California Scrub-Jay 2 American Crow 13 Common Raven 7 Northern Rough-winged Swallow 36 Cliff Swallow 53 Bushtit 15 Wrentit 25 Blue-gray Gnatcatcher 1 California Gnatcatcher 14 House Wren 13 Bewick's Wren 2 Northern Mockingbird 12 Phainopepla 3 House Sparrow 3 House Finch 102

Song Sparrow 15 California Towhee 18 Spotted Towhee 18 Yellow-breasted Chat 13 Hooded Oriole 7 Red-winged Blackbird 4 Brown-headed Cowbird 1 Orange-crowned Warbler 1 Common Yellowthroat 13 Yellow Warbler 1 Black-headed Grosbeak 7

Observers: Not recorded

View this checklist online at <u>ebird.org/checklist/S71638728</u>

Herb Knüfken's amazing photo gallery, including many birds, may be found here: pbase.com/herb1rm



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